Pentium III EBX-SBC designed for
Mobile and Outdoor applications
-40°C to +85°C Operating Temp.
Over 180,000 Hours MTBF

5821

EBX-CELERON/PENTIUM III SBC - 400MHz to 1.2GHz

LCD | Six RS232 | LAN | PC104+

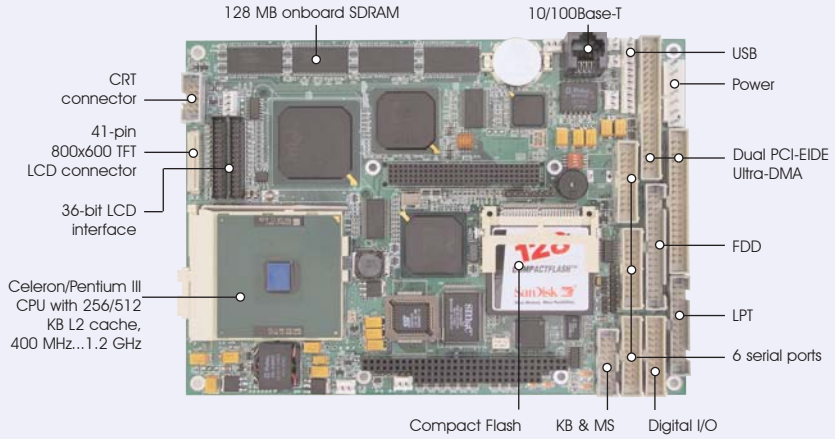
The Shortest path from ideas...to product.

Features

- Ultra low power, Passive Heat Sink for CPU up to 900 MHz
- 16W (900Mhz CPU, 256K L2 cache)
- 5 year product availability guarantee
- 128 MB onboard SDRAM
- CF- Flash Disk (up to 1Gbytes)
- 10/100Base-T Ethernet interface
- 6 serial ports, dual USB, 256 Bytes EEPROM, 64-bit unique electronic ID
- Intelligent thermal management with independent microcontroller
- Supports DOS, Windows 98, NT, 2000, XP, CE, QNX, pSOS, Linux, VxWorks
- 3 second boot up time

Applications

- Robotic
- Medical
- Test & Measurement
- Transportation
- Avionics
- Mil/Aerospace
- e-Kiosks
- Industrial Automation
- Inventory Management
- Point Of Sale Terminal



Technical Data

System

CPU	Ultra low power Tualatin (Celeron/Pentium III) processor up to 1.2 GHz with 256 KB/512 KB L2 cache
SYSTEM MEMORY	128MB onboard SDRAM
CHIPSET	Intel 440BX embedded chipset
BIOS	3 second boot up BIOS on 256 KB flash memory
SSD	Supports CompactFlash™ card up to 1Gbytes
WATCHDOG TIMER	Software enable/disable/programmable up to 128 sec.
BUS	PCI on PC104-*Plus*(33 MHz) / ISA on PC104(8.33 MHz)
POWER CONSUMPTION	Typical: 5 V @ 3.2 A [900 MHz Tualatin/Celeron CPU] 5 V @ 6.0 A [1.26 GHz Tualatin/Pentium III CPU]
SIZE	8" x 5.75"
TEMPERATURE	-40°C ~ 85°C operating (CPU speed up to 900Mhz)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing

I/O

STANDARD I/O	2 x EIDE (Ultra DMA33), 1 x FDD, 1 x K/B, 1 x Mouse, 6 x RS-232, 1 x LPT, 2 USB ports (USB 1.0 compliant)
NETWORK	10/100BASE-T (Intel 82559ER)
DIGITAL I/O	8-bit input / 8-bit output

Display

CHIPSET	Chips & Technologies 69030
MEMORY SIZE	4 MByte
RESOLUTION	Supports up to 1280 x 1024 CRT and TFT LCD display
LCD INTERFACE	Standard 41-pin VESA connector for 800 x 600 TFT LCD Connectors for 36-bit TFT LCD up to 1280 x 1024

Performance Comparison

740MFLOPS	**5821** with 1.2 GHz Tualatin Celeron (256KB L2 cache)
LESS THAN 500MFLOPS	**Generic EBX SBC** with 700 MHz Pentium III
525MFLOPS	**5821** with 900 MHz Tualatin Celeron (256KB L2 cache)

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Single Board Computer 5821

Features Description

CPU	Socket 370 supports ultra low power Intel Tualatin processor (0.13 micron technology) Celeron and Pentium III with low core voltage L1 Cache - 16 KB instruction, 16 KB write-back data L2 Cache - 256-KB for Tualatin Celeron CPU, 512K L2 cache for Tualatin Pentium III CPU Core voltage - 1.2V - 1.5V Passive heatsink for 500 MHz and 900 MHz processor (with 100LFM air flow)
Chipset	Intel 440BX embedded chipset, Super I/O FDC37B787 and B69030 video chipset
Intelligent Thermal management Temperature and fans controller	Onboard independent microcontroller is used to monitor processor and system temperatures The parameters are then used to adjust CPU and system fan speed to maximize their life expectancy. It can also adjust the CPU load to maintain the CPU temperature within a specific limit End user can change the CMOS setup to set all of the above parameters. This feature is very useful especially in the event of a CPU or system fan failure.
BIOS (3 second Boot up time)	Designed for embedded applications with 3 second boot up time with integrated video Support for many LCD panels. CMOS setup is stored on EEPROM to prevent system failure due to battery loss. The embedded BIOS can be customized as per customer's requirements.
Memory	Onboard memory banks support 128 MB 3.3V SDRAM (PC-100 or PC-133)
Flash / Disk Interface	Compact Flash socket for on-board flash disk up to 1 GB
Video Interface	Chips & Technologies 69030 with 4 MB VRAM built-in CRT mode up to 1280 X 1024 @ 24-bit color resolution LCD mode up to 1024 X 768 @ 24-bit color resolution Supports LCD/TFT/STN/EL 3.3V or 5V displays Supports up to 36-bit LCD
Network Interface	10/100 Base-T using Intel 82559ER Fast Ethernet controller. Onboard RJ-45 connector
EIDE Interface	Integrated dual channel enhanced IDE interface. Support for up to four IDE devices. Support for Ultra DMA/33 synchronous DMA mode transfers at up to 33 MB/sec
Floppy Disk Interface	One 34-pin connector, supports two floppy drives
COM2,3,4,5,6 Interface	RS-232, 16C550 compatible, 115K baud max,
COM1 Interface	RS-232, 16C550 compatible, 115K baud max RS-485 (optional)
LPT Interface	Bi-directional/EPP/ECP compatible
USB Interfaces	Two USB ports (Rev 1.0)
Other Embedded Features	Electronic ID, Digital I/O (8/8) Voltage monitoring reset circuit System Management Bus (SMBus) Power management logic support Programmable Watch Dog Timer 2s to 120s CMOS setup data stored on serial EEPROM to support batteryless boot capability 128 Bytes EEPROM available for OEM use ESD protection on serial ports: 15,000V MTBF 180,000 Hours

Ordering Information

5821LV-85P	850MHZ INTEL PENTIUM III, 256K L2 CACHE, 0°C TO +65°C OPERATING TEMPERATURE, 3.4A @ +5V,
5821LV-50C	ULTRA LOW POWER 500MHZ INTEL TUALATIN CELERON CPU, 256K L2 CACHE, 0°C TO +65°C OPERATING TEMPERATURE, 2.6A @ +5V,
5821LV-90C	LOW POWER 900MHZ INTEL TUALATIN CELERON CPU, 256K L2 CACHE, 0°C TO +65°C OPERATING TEMPERATURE, 3.4A @ +5V,
5821LV-12C	HIGH PERFORMANCE 1200MHZ TUALATIN CPU, 256K L2 CACHE, 0°C TO +65°C OPERATING TEMPERATURE, 5.5A @ +5V,
5821LV-10P	HIGH PERFORMANCE 1000MHZ PENTIUM III, 512K L2 CACHE, 0°C TO +65°C OPERATING TEMPERATURE, 7A @ +5V,
5821LV-85E	850MHZ PENTIUM III, 256K L2 CACHE, -40°C TO +85°C OPERATING TEMPERATURE, 3.2A @ +5V,
5821LV-90E	LOW POWER 900MHZ INTEL TUALATIN CPU, 256K L2 CACHE, -40°C TO +85°C OPERATING TEMPERATURE, 3.2A @ +5V,

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